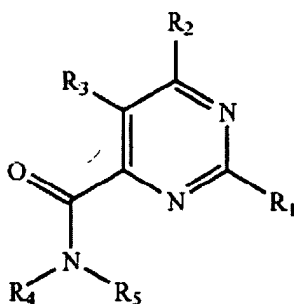


The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-18 (canceled)

19. (currently amended) A compound of formula (I)



R₁ is H or NH₂;

R₂ is optionally substituted aryl or heteroaryl attached via a carbon atom;

R₃ is H; optionally substituted C₁-C₆ alkyl, C₁-C₆ alkenyl, C₂-C₆ alkynyl, or C₃-C₇ cycloalkyl, halogen; OH or OR₁₀;

R₄ is H, optionally substituted C₁-C₆ alkyl, C₃-C₆ alkenyl, C₃-C₆ alkynyl, C₃-C₇ cycloalkyl, aryl or heteroaryl,

R₅ is H or optionally substituted C₁-C₆ alkyl, C₂-C₆ alkenyl, C₁-C₆ alkynyl, or C₃-C₇ cycloalkyl; or R₄ and R₅ together form a 5 or 6-membered heterocyclic ring;

R₁₀ is optionally substituted C₁-C₆ alkyl;

wherein the term "substituted" means substituted with at least one substituent selected from (C₁-C₆)alkyl, (C₁-C₆)alkoxy, hydroxy, hydroxy(C₁-C₆)alkyl, mercapto, mercapto(C₁-C₆)alkyl, (C₁-C₆)alkylthio, halo, trifluoromethyl, trifluoromethoxy, nitro, nitrile (-CN), oxo, phenyl, monocyclic heterocyclic having 5- or 6 ring members, -COOH, -COOR^A, -COR^A, -SO₂R^A, -CONH₂, -SO₂NH₂, -CONHR^A, -SO₂NHR^A, -CONR^AR^B, -SO₂NR^AR^B, -NH₂, -NHR^A, -NR^AR^B, -OCONH₂, -OCONHR^A, -OCONR^AR^B, -NHCOR^A, -NR^BCOR^A, -NHCOOR^A, -NR^BCOOR^A, -NHSO₂R^A, -NR^BSO₂R^A, -NHCONH₂, -NR^ACONH₂, -NHCONHR^B, -NR^ACONHR^B, -

NHCONR^AR^B or -NR^ACONR^AR^B wherein R^A and R^B are independently a (C₁-C₆)alkyl group wherein phenyl or monocyclic heterocyclic having 5- or 6 ring members may be substituted by any of the foregoing except phenyl and monocyclic heterocyclic having 5- or 6 ring members;
or a pharmaceutically acceptable salt thereof PROVIDED THAT: (a) R₂ is not an optionally substituted pyrazolopyridine ring system; and (b) when R₁ and R₃ are hydrogen and R₂ is unsubstituted phenyl then -NR₄R₅ is not -NH₂, NHCH₃ or N(CH₃)₂; and (c) when R₁ is -NH₂ and R₃ is hydrogen, then R₂ is not phenyl or phenyl substituted by any substituent selected from halogen, hydroxy, C₁-C₆ alkyl, C₁-C₆ alkoxy, nitro, -NH₂, or -NHCOCH₃.

20. (original) A compound as claimed in claim 19 wherein R₁ is -NH₂ and R₃ is hydrogen, and R₂ is substituted phenyl, the substituent(s) in the phenyl being selected from, methylenedioxy, C₁-C₆ alkylthio, trifluoromethyl, trifluoromethoxy, nitrile (-CN), oxo, COR^A, CONHR^A, --CONR^AR^B, --NHR^A, NR^AR^B, --NHCOR^C, --NHCOOR^A, --NR^BCOOR^A wherein R^A and R^B are independently a C₁-C₆ alkyl group and wherein R^C is a C₂-C₆ alkyl group.

Claims 21-22 (canceled)

23. (original) A pharmaceutical composition comprising a compound as claimed in claim 19 in combination with a pharmaceutically acceptable carrier or excipients.

Claims 24-41 (canceled)

42. (Currently Amended) A compound selected from the group consisting of:

- 2-Amino-N-(2-fluorobenzyl)-6-(2-furyl) pyrimidine-4-carboxamide;
- 2-Amino-N-(3,4-difluorophenyl)-6-(2-furyl) pyrimidine-4-carboxamide;
- 2-Amino-6-(2-furyl)-N-(3-methoxybenzyl) pyrimidine-4-carboxamide;
- 2-Amino-6-(2-furyl)-N, N-dimethylpyrimidine-4-carboxamide;
- 1-(2-Amino-6-(2-furyl) pyrimidin-4-ylcarbonyl) piperidine;
- 2-Amino-6-(2-furyl)-N-(2-methoxybenzyl) pyrimidine-4-carboxamide;

2-Amino-6-(2-furyl)-N-(2-furylmethyl) pyrimidine-4-carboxamide;
 2-Amino-6-(2-furyl) pyrimidine-4-carboxamide;
 2-Amino-6-(2-furyl)-N-(4-dimethylaminobenzyl) pyrimidine-4-carboxamide;
 2-Amino-6-(2-furyl)-N-(3-methylpyridin-2-ylmethyl) pyrimidine-4-carboxamide;
 2-Amino-6-(2-furyl)-N-(3-(dimethylaminocarbonyl)benzyl) pyrimidine-4-carboxamide; 2-Amino-6-(2-furyl)-N-(2-pyridylmethyl) pyrimidine-4-carboxamide;
 2-Amino-6-(2-furyl)-N-(4-pyridylmethyl) pyrimidine-4-carboxamide;
 2-Amino-6-(2-furyl)-N-(2-methylbenzyl) pyrimidine-4-carboxamide;
 2-Amino-N-(3-trifluoromethylbenzyl)-6-(2-furyl) pyrimidine-4-carboxamide;
 2-Amino-N-(1H-benzimidazol-2-ylmethyl)-6-(2-furyl) pyrimidine-4-carboxamide;
 2-Amino-6-(2-furyl)-N-(3-pyridylmethyl) pyrimidine-4-carboxamide;
 2-Amino-6-(2-furyl)-N-(3-methylbenzyl) pyrimidine-4-carboxamide;
 2-Amino-6-(2-furyl)-N-(3,6-dimethylpyridin-2-ylmethyl) pyrimidine-4-carboxamide;
 2-Amino-6-(2-furyl)-N-(2-(2-thienyl) thiazol-4-ylmethyl) pyrimidine-4-carboxamide;
 2-Amino-6-(2-furyl)-N-(2-thienylmethyl) pyrimidine-4-carboxamide;
 2-Amino-6-(2-furyl)-N-(5-(2-pyridyl)-2-thienylmethyl) pyrimidine-4-carboxamide;
 2-Amino-6-(2-furyl)-N-(5-methyl-2-trifluoromethylfuran-3-ylmethyl) pyrimidine-4-carboxamide;
 2-Amino-6-(2-furyl)-N-(5-methylisoxazol-3-ylmethyl) pyrimidine-4-carboxamide;
 2-Amino-6-(2-furyl)-N-(2-methoxy-6-methylpyridin-3-ylmethyl) pyrimidine-4-carboxamide;
 2-Amino-N-(6-fluoro[1,3]benzodioxin-8-ylmethyl)-6-(2-furyl) pyrimidine-4-carboxamide;
 2-Amino-6-(2-furyl)-N-(6-methylpyridin-3-ylmethyl) pyrimidine-4-carboxamide;
 2-Amino-6-(2-furyl)-N-(3-indolylmethyl) pyrimidine-4-carboxamide;
 2-Amino-6-(2-furyl)-N-(6-hydroxymethylpyridin-2-ylmethyl) pyrimidine-4-carboxamide;
 2-Amino-6-(2-furyl)-N-(1-methyl-1H-imidazol-2-ylmethyl) pyrimidine-4-carboxamide;
 2-Amino-6-(2-furyl)-N-(5-H-indolylmethyl) pyrimidine-4-carboxamide;
 2-Amino-N-(2,3-dimethylindol-5-ylmethyl)-6-(2-furyl) pyrimidine-4-carboxamide;
 2-Amino-6-(2-furyl)-N-(3-methyl-4-nitrobenzyl) pyrimidine-4-carboxamide;
 2-Amino-6-(2-furyl)-N-methyl-N-(2-(2-pyridyl)ethyl) pyrimidine-4-carboxamide;

2-Amino-6-(2-furyl)-N-(2-methylindol-5-ylmethyl) pyrimidine-4-carboxamide;
 2-Amino-N-benzyl-6-(2-furyl) pyrimidine-4-carboxamide;
 N-Allyl-2-amino-6-(2-furyl) pyrimidine-4-carboxamide;
 (R)-2-Amino-6-(2-furyl)-N-(2-hydroxypropyl) pyrimidine-4-carboxamide;
 2-Amino-6-(2-furyl)-N-(6-indolylmethyl) pyrimidine-4-carboxamide;
 2-Amino-6-(2-furyl)-N-(quinolin-8-ylmethyl) pyrimidine-4-carboxamide;
 2-Amino-6-(2-furyl)-N-(2-(pyridin-2-yl)ethyl) pyrimidine-4-carboxamide;
 2-Amino-N-(2-chlorobenzyl)-6-(2-furyl) pyrimidine-4-carboxamide;
 2-Amino-6-(2-furyl)-N-(2-trifluoromethylbenzyl) pyrimidine-4-carboxamide;
 2-Amino-N-([2,1,3]benzothiadiazol-5-ylmethyl)-6-(2-furyl) pyrimidine-4-carboxamide;
 2-Amino-6-(2-furyl)-N-(isoquinolin-3-ylmethyl) pyrimidine-4-carboxamide;
 1-(2-Amino-6-(2-furyl)pyrimidin-4-ylcarbonyl)-4-(2-pyridyl) piperazine;
 2-Amino-6-(2-furyl)-N-(quinolin-2-ylmethyl) pyrimidine-4-carboxamide;
 2-Amino-N-(benzothiazol-2-ylmethyl)-6-(2-furyl) pyrimidine-4-carboxamide;
 (S)-2-Amino-6-(2-furyl)-N-(1-phenylethyl) pyrimidine-4-carboxamide;
 2-Amino-N-(4-chlorobenzyl)-6-(2-furyl) pyrimidine-4-carboxamide;
 2-Amino-N-(4-fluorobenzyl)-6-(2-furyl) pyrimidine-4-carboxamide;
 (R)-2-Amino-6-(2-furyl)-N-(1-phenylethyl) pyrimidine-4-carboxamide;
 2-Amino-6-(2-furyl)-N-(4-methoxybenzyl) pyrimidine-4-carboxamide;
 2-Amino-N-(cyanomethyl)-6-(2-furyl) pyrimidine-4-carboxamide;
 2-Amino-6-(2-furyl)-N-(4-methylbenzyl) pyrimidine-4-carboxamide;
 2-Amino-6-(2-furyl)-N-(1-phenylprop-1-yl) pyrimidine-4-carboxamide;
 2-Amino-N-(3-fluorobenzyl)-6-(2-furyl) pyrimidine-4-carboxamide;
 2-Amino-N-(3-chlorobenzyl)-6-(2-furyl) pyrimidine-4-carboxamide;
 2-Amino-6-(2-furyl)-N-(3-methylphenyl) pyrimidine-4-carboxamide;
 2-Amino-6-(2-furyl)-N-(3-methylpyridin-2-yl) pyrimidine-4-carboxamide;
 2-Amino-6-(2-furyl)-N-(3-phenylpropyl) pyrimidine-4-carboxamide;
 2-Amino-N-(4-amino-3-methylbenzyl)-6-(2-furyl) pyrimidine-4-carboxamide;
 2-Amino-N-benzyl-6-(2-furyl)-N-methylpyrimidine-4-carboxamide;

2-Amino-6-(2-furyl)-N-(5-methylpyrazin-2-ylmethyl) pyrimidine-4-carboxamide;
 2-Amino-6-(2-furyl)-N-(1H-imidazol-2-ylmethyl) pyrimidine-4-carboxamide;
 2-Amino-6-(2-furyl)-N-(1-n-propyl-1H-imidazol-2-ylmethyl) pyrimidine-4-carboxamide;
 2-Amino-N-(2-bromobenzyl)-6-(2-furyl) pyrimidine-4-carboxamide;
 2-Amino-N-(6-bromopyridin-2-ylmethyl)-6-(2-furyl) pyrimidine-4-carboxamide;
 2-Amino-N-(6-aminopyridin-2-ylmethyl)-6-(2-furyl) pyrimidine-4-carboxamide;
 2-Amino-6-(2-furyl)-N-(3-(1H-imidazol-1-yl) propyl) pyrimidine-4-carboxamide;
 2-Amino-N-(1-ethyl-1H-imidazol-2-ylmethyl)-6-(2-furyl) pyrimidine-4-carboxamide;
 2-Amino-N-(2-dimethylamino-6-methylpyridin-3-ylmethyl)-6-(2-furyl) pyrimidine-4-carboxamide;
 (R)-Methyl-2-(6-(2-amino-6-(2-furyl) pyrimidine-4-carboxamido)) phenylacetate;
 (S)-Methyl-2-(6-(2-amino-6-(2-furyl) pyrimidine-4-carboxamido)) phenylacetate;
 2-Amino-N-(2, 6-dichlorobenzyl)-6-(2-furyl) pyrimidine-4-carboxamide;
 2-Amino-N-(3-methylpyridin-2-ylmethyl)-6-(thiazol-2-yl) pyrimidine-4-carboxamide;
 2-Amino-N-(6-n-propylpyridin-2-ylmethyl)-6-(thiazol-2-yl) pyrimidine-4-carboxamide;
 2-Amino-6-(5-methyl-2-furyl)-N-(2-trifluoromethylbenzyl) pyrimidine-4-carboxamide;
 2-Amino-6-(5-methyl-2-furyl)-N-(2-pyridylmethyl) pyrimidine-4-carboxamide;
 2-Amino-6-(5-methyl-2-furyl)-N-(1-methyl-1H-pyrrol-2-ylmethyl) pyrimidine-4-carboxamide;
 2-Amino-5-bromo-6-(5-methyl-2-furyl)-N-(2-trifluoromethylbenzyl) pyrimidine-4-carboxamide;
 2-Amino-N-(2-methylbenzyl)-6-(5-methyl-2-furyl) pyrimidine-4-carboxamide;
 2-Amino-N-(3-methylbenzyl)-6-(5-methyl-2-furyl) pyrimidine-4-carboxamide;
 2-Amino-N-(4-methylbenzyl)-6-(5-methyl-2-furyl) pyrimidine-4-carboxamide;
 2-Amino-N-(2-chlorobenzyl)-6-(5-methyl-2-furyl) pyrimidine-4-carboxamide;
 2-Amino-N-(3-chlorobenzyl)-6-(5-methyl-2-furyl) pyrimidine-4-carboxamide;
 2-Amino-6-(5-methyl-2-furyl)-N-(3-pyridylmethyl) pyrimidine-4-carboxamide;
 2-Amino-6-(5-methyl-2-furyl)-N-(4-pyridylmethyl) pyrimidine-4-carboxamide;
 2-Amino-N-(2-methoxybenzyl)-6-(5-methyl-2-furyl) pyrimidine-4-carboxamide;
 2-Amino-N-(3-methoxybenzyl)-6-(5-methyl-2-furyl) pyrimidine-4-carboxamide;

2-Amino-N-(3-fluorobenzyl)-6-(5-methyl-2-furyl) pyrimidine-4-carboxamide;
 2-Amino-6-(5-methyl-2-furyl)-N-(3-trifluoromethylbenzyl) pyrimidine-4-carboxamide;
 2-Amino-N-(6-hydroxymethylpyridin-2-ylmethyl)-6-(5-methyl-2-furyl) pyrimidine-4-carboxamide;
 2-Amino-N-(1,5-dimethyl-1H-pyrazol-3-ylmethyl)-6-(5-methyl-2-furyl) pyrimidine-4-carboxamide;
 2-Amino-6-(5-methyl-2-furyl)-N-(5-methylisoxazol-3-ylmethyl) pyrimidine-4-carboxamide;
 2-Amino-6-(5-methyl-2-furyl)-N-(2-phenylethyl) pyrimidine-4-carboxamide;
 2-Amino-6-(5-methyl-2-furyl)-N-(3-phenylpropyl) pyrimidine-4-carboxamide;
 2-Amino-N-benzyl-N-ethyl-6-(5-methyl-2-furyl) pyrimidine-4-carboxamide;
 (R, S)-2-Amino-6-(5-methyl-2-furyl)-N-(1-phenylpropyl) pyrimidine-4-carboxamide;
 2-Amino-N-(1,5-dimethyl-1H-pyrrol-2-ylmethyl)-6-(5-methyl-2-furyl) pyrimidine-4-carboxamide;
 (R, S)-2-Amino-6-(5-methyl-2-furyl)-N-(1-phenylethyl) pyrimidine-4-carboxamide;
 (S)-2-Amino-N-methyl-6-(5-methyl-2-furyl)-N-(1-phenylethyl) pyrimidine-4-carboxamide;
 2-Amino-6-(5-methyl-2-furyl)-N-(1-phenylprop-2-yl) pyrimidine-4-carboxamide;
 2-Amino-N-isobutyl-6-(5-methyl-2-furyl) pyrimidine-4-carboxamide;
 2-Amino-N-hexyl-6-(5-methyl-2-furyl) pyrimidine-4-carboxamide;
 2-Amino-N-butyl-N-methyl-6-(5-methyl-2-furyl) pyrimidine-4-carboxamide;
 2-Amino-N-methyl-6-(5-methyl-2-furyl)-N-pentylpyrimidine-4-carboxamide;
 2-Amino-N-benzyl-6-(5-methyl-2-furyl) pyrimidine-4-carboxamide;
 2-Amino-6-(5-methyl-2-furyl)-N-phenylpyrimidine-4-carboxamide;
 2-Amino-N-benzyl-6-(4-methylthiazol-2-yl) pyrimidine-4-carboxamide;
 2-Amino-6-(5-methyl-2-furyl)-N-(1-methyl-1H-pyrazol-5-ylmethyl) pyrimidine-4-carboxamide;
 2-Amino-N-(1-methyl-1H-pyrazol-5-ylmethyl)-6-(4-methylthiazol-2-yl) pyrimidine-carboxamide;
 2-Amino-6-(4-methylthiazol-2-yl)-N-(pyridin-2-ylmethyl) pyrimidine-4-carboxamide;
 2-Amino-6-(4-methylthiazol-2-yl)-N-(2-trifluoromethylbenzyl) pyrimidine-4-carboxamide;
 2-Amino-N-(1,5-dimethyl-1H-pyrazol-3-ylmethyl)-6-(4-methylthiazol-2-yl) pyrimidine-4-carboxamide;

2-Amino-6-(5-methyl-2-furyl)-N-(1-methyl-1H-pyrazol-3-ylmethyl) pyrimidine-4-carboxamide;
 2-Amino-N-(1-methyl-1H-pyrazol-3-ylmethyl)-6-(4-methylthiazol-2-yl) pyrimidine-4-carboxamide;
 N-(1,5-Dimethyl-1H-pyrazol-3-ylmethyl)-6-(5-methyl-2-furyl) pyrimidine-4-carboxamide;
 6-(5-Methyl-2-furyl)-N-(2-trifluoromethylbenzyl) pyrimidine-4-carboxamide;
 N-Benzyl-6-(5-methyl-2-furyl) pyrimidine-4-carboxamide;
 6-(5-Methyl-2-furyl)-N-(2-pyridylmethyl) pyrimidine-4-carboxamide;
 N-(3, 6-Dimethylpyridin-2-ylmethyl)-6-(5-methyl-2-furyl) pyrimidine-4-carboxamide;
 2-Amino-N-(1,3-dimethyl-1H-pyrazol-5-ylmethyl)-6-(5-methyl-2-furyl) pyrimidine-4-carboxamide;
 2-Amino-N-(1,3-dimethyl-1H-pyrazol-5-ylmethyl)-6-(4-methylthiazol-2-yl) pyrimidine-4-carboxamide;
 2-Amino-6-(5-methyl-2-furyl)-N-(6-methylpyridin-2-ylmethyl) pyrimidine-4-carboxamide;
 2-Amino-6-(5-methyl-2-furyl)-N-(1-methyl-1H-pyrazol-4-ylmethyl) pyrimidine-4-carboxamide;
 2-Amino-6-(4-methylthiazol-2-yl)-N-(pyrimidin-4-ylmethyl) pyrimidine-4-carboxamide;
 2-Amino-6-(4-methylthiazol-2-yl)-N-(4-methylthiazol-2-ylmethyl) pyrimidine-4-carboxamide;
 2-Amino-N-(1,5-dimethyl-1H-pyrazol-4-ylmethyl)-6-(4-methylthiazol-2-yl) pyrimidine-4-carboxamide;
 2-Amino-N-(1,3-dimethyl-1H-pyrazol-4-ylmethyl)-6-(4-methylthiazol-2-yl) pyrimidine-4-carboxamide;
 2-Amino-6-(4-methylthiazol-2-yl)-N-(pyridin-3-ylmethyl) pyrimidine-4-carboxamide;
 2-Amino-6-(4-methylthiazol-2-yl)-N-(3-trifluoromethylbenzyl) pyrimidine-4-carboxamide;
 2-Amino-N-(2-methylbenzyl)-6-(4-methylthiazol-2-yl) pyrimidine-4-carboxamide;
 2-Amino-N-(3-methoxybenzyl)-6-(4-methylthiazol-2-yl) pyrimidine-4-carboxamide;
 2-Amino-N-(3-methylbenzyl)-6-(4-methylthiazol-2-yl) pyrimidine-4-carboxamide;
 2-Amino-N-(3-fluorobenzyl)-6-(4-methylthiazol-2-yl) pyrimidine-4-carboxamide;
 2-Amino-N-(3-chlorobenzyl)-6-(4-methylthiazol-2-yl) pyrimidine-4-carboxamide;
 2-Amino-N-(6-methylpyridin-2-ylmethyl)-6-(4-methylthiazol-2-yl) pyrimidine-4-carboxamide;
 2-Amino-6-phenyl-N-(2-trifluoromethylbenzyl) pyrimidine-4-carboxamide;

2-Amino-6-phenyl-N-(pyridin-2-ylmethyl) pyrimidine-4-carboxamide;
2-Amino-6-(2-methylphenyl)-N-(pyridin-2-ylmethyl) pyrimidine-4-carboxamide;
2-Amino-6-(4-methylphenyl)-N-(pyridin-2-ylmethyl) pyrimidine-4-carboxamide;
2-Amino-6-(3-cyanophenyl)-N-(pyridin-2-ylmethyl) pyrimidine-4-carboxamide;
2-Amino-6-(2-methylphenyl)-N-(3-methylpyridin-2-ylmethyl) pyrimidine-4-carboxamide;
2-Amino-6-(3-methylphenyl)-N-(3-methylpyridin-2-ylmethyl) pyrimidine-4-carboxamide;
2-Amino-6-(4-methylphenyl)-N-(3-methylpyridin-2-ylmethyl) pyrimidine-4-carboxamide;
2-Amino-6-(3-cyanophenyl)-N-(3-methylpyridin-2-ylmethyl) pyrimidine-4-carboxamide;
2-Amino-6-(3-methylphenyl)-N-(pyridin-2-ylmethyl) pyrimidine-4-carboxamide;
2-Amino-6-(3-methoxyphenyl)-N-(pyridin-2-ylmethyl) pyrimidine-4-carboxamide;
2-Amino-6-(3-methoxyphenyl)-N-(3-methylpyridin-2-ylmethyl) pyrimidine-4-carboxamide; and
2-Amino-N-(3-methylpyridin-2-ylmethyl)-6-phenylpyrimidine-4-carboxamide.